



TOP-40 MULTI-SENSOR HEAT AND FLAME DETECTOR

Overview

The multi-detector TOP-40 heat and flame detector is designed to detect and signal a source of a fire in areas where there is a rise of temperature and a visible flame.

Application of two sensors: heat and infrared radiation (IR) makes the detector more resistant to disturbances and minimizes possible initiation of false alarms.

The detector meets the requirements of the PN-EN 54-5 European standard for class A1R and PN-EN 54-10 European standard for class 2.

Principles of operation

The heat sensor is a thermistor, which reacts to the rise of temperature occurring during the first stage of a fire.

The flame sensor is a Pyro Element especially sensitive to 4.35 μm (spectral line of CO_2) wavelength.

Detection of a fire factor by the flame sensor causes the temperature path sensitivity increase.

Both sensors constitute a detection circuit sending information about fire factor sources subjected to analysis and evaluation of a fire hazard by the microprocessor controlling the detector. In an event the pre-set increase value or the fire hazard threshold is exceeded, the electronic system of the detector transmits an alarm signal to the fire alarm control panel.

Design

The detector has two sensors: heat and flame. These sensors are located one above another. The construction and shape of the detector enables for fire factors to be detected by the sensors.

The TOP-40 detector is equipped with an optical indicator emitting a red light during a fire alarm. It enables quick location of the detector initiating the alarm and is helpful during periodic maintenance. If the detector is not visible or is barely visible, the WZ-31 additional optical indicator can be connected and placed in a well visible place.

The detector is installed in the G-40 base.

The TOP-40 detectors meet the requirements of the PN-EN 54-3 and PN-EN 54-10 European standards.

Technical specifications

Operating voltage	9 \div 28 V
Quiescent current	\leq 90 μA
Alarm current	20 mA
Flame sensor operating angle	60 $^\circ$
Alarm static temperature	from 54 $^\circ\text{C}$ up to 65 $^\circ\text{C}$
Typical operation temperature	25 $^\circ\text{C}$
Operation temperature range	from -25 $^\circ\text{C}$ up to +50 $^\circ\text{C}$
Dimensions (with base)	\varnothing 115 x 71 mm
Mass	0.2 kg